

Chapter 1

INTRODUCTION

1.1 General Description of the AGRICULTURE CENSUS Undertaking

Myanmar Census of Agriculture 2003 (MCA 2003) is the third census to be taken on a nationwide basis. The main census is scheduled to be conducted on 1 October 2003 to 15 November 2003 in about 65,175 villages (Department of General Administration, Handbook on HRDI 2002) all over the country. The Settlement and Land Records Department (SLRD) of the Ministry of Agriculture and Irrigation is the executing agency for the MCA 2003 and therefore will be coordinating the conduct of the census with line ministries who are also stakeholders in this undertaking.

FAO has provided technical assistance under TCP/ MYA/ 2801 Assistance to the Census of Agriculture 2003. However, the assistance is limited to the development of all census instruments needed in the conduct of the Census, undertake a pilot census to test the census instruments, design data processing system, and train field officers to act as trainers for the nationwide training of enumerators. In the 1993 Census of Agriculture, UNDP had provided adequate funds that enabled FAO to extend technical assistance and services from the preparatory phase up to publications of census results. In the MCA 2003, the government of Myanmar is committed to defray the cost of data collection, processing of census returns and the publication of results because of the importance of agricultural statistics in the development of agriculture in the country.

SLRD has a network of Land Records Offices throughout the country. Census Field staff would be recruited from the ranks of land records officers at different levels of administrative hierarchy. Since livestock and fisheries activities form an integral part of the census operation, the Department of Livestock and Veterinary, and the Department of Fisheries have a special participation in this census by providing a list of commercial establishments engaged in livestock and poultry raising and in fishing and fish culture nationwide, especially in highly urbanized areas. Primarily, the agricultural census is to be carried out, as a routine function of SLRD, therefore, SLRD staff would undertake all the responsibilities in implementing the whole census programme. Representatives from the two departments (Department of Livestock and Veterinary and Department of Fisheries) were involved during the planning stage of MCA 2003 through the Technical Committee. Top officials of the two departments are also members of the Steering Committee. Since the data to be generated from the census are quite important for policy formulation and monitoring of programmes undertaken by them, they would actively participate during the main census field operations through their field offices nationwide.

In April-May of 2003, surveyors assigned at the village level, and inspectors and staff officers at the township level have updated the sketch maps of villages in rural areas and blocks in urban areas indicating the location of households, and holdings, and conducted a listing of households. During the listing operation the households were asked several questions that enable the classification into five types of activities related to agriculture and fishing, namely: presence of net sown crop area, number of livestock and poultry of which the commercial livestock and poultry holdings were identified if their products are mainly for sale, household fishing whether on-farm or off-farm, and aquaculture or fish culture whether for sale or for home consumption. This listing of households will provide a list frame to be used during the main

census operation. In view of this, it is therefore very important for the supervisors, to verify the completeness of the list of villages in each village tracts and blocks in each ward to ensure the complete geographic coverage of the census. If some villages may be missed during the listing operation for one reason or another, the areas missed can no longer be included in the main census because of the absence of the list frame. However, for documentation purposes, villages or blocks excluded during the listing should be recorded so that during the census operation, there may still be time to cover them. The township officer should be informed of the omission so that he can relay this information to the supervisor concerned.

A village or block, for the purpose of enumeration, is the unit of smallest enumeration area. Several villages comprise a Village Tract (rural areas) or several blocks may comprise a Ward (Urban areas). The Village Tract or Ward is the lowest administrative or political unit in which the census results may be aggregated and published. That is, when township results are presented, the disaggregation or desegregation of statistics would be at the ward and village tract levels. The data of villages and blocks will not be presented that is why it is essential that all villages and blocks must be covered. In case a village or block or some villages and blocks were not included during the actual enumeration but were listed as of May 31, 2003, the non-coverage should be noted because the data for the village tract would not be complete.

The conduct of the Agriculture Census was scheduled earlier but due to revisions of the Questionnaires based on the experiences gained from the Pilot Census, the operation was postponed to a later date. The new schedule for the Census operation is shown below:

Date	Activity
Aug 11- 15, 2003	1. Training of Task Force on Training (Central Headquarters)
Aug 18-22, 2003	2. Training of Trainers in Yangon (70 District Officers)
Aug 25-29,2003	3. Training of Supervisors and Enumerators
September, 2003	4. Training of Data Entry Operators (4 Data Processing Centers)
Oct 1 –Nov15, 2003	5. Field Operation (Data collection)
Dec 1-15, 2003	6. Training for Manual Processors in 4 Data Processing Centers.

1.2 Objectives of the Myanmar Census of Agriculture 2003

The objective of the main census has been discussed in the Enumerator's Manual. However, for ready reference, it is reproduced below.

The main objective of the Census of Agriculture is to take an inventory of all agricultural holdings in the country so that structural data could be collected for small administrative divisions needed for planning and formulation of policies that will directly benefit them.

In addition, fishing and aquaculture will be included in the data collection phase of the MCA 2003. While fishing and fish culture are not part of the Census of Agriculture, it is also included in the data collection because of the importance of fish in the food security of Myanmar. The coverage of fishing conducted on agricultural holding is part of the WCA Programme but the MCA 2003 included the collection of fishing activities of households even outside the premises of the agricultural holding.

1.3 Coverage of Myanmar Census of Agriculture 2003 (MCA 2003)

1. Geographic Coverage

The Myanmar Census of Agriculture 2003 (MCA 2003) will cover all 9 States and 8 Divisions of the Union of Myanmar. Of the 324 townships, about 314 townships will be covered.

It may be noted that in 1993, only 272 townships were covered. The 1993 CA did not cover the highly urbanized areas in Yangon. In the MCA 2003, highly urbanized areas of Yangon will be covered as long as there are holdings found or listed in the area. During the listing operation, the highly urbanized areas of Yangon (33) and Mandalay (5) were not covered. However, the Department of Livestock and Veterinary and the Department of Fisheries had furnished the SLRD a list of establishments in these areas. Furthermore, a list of agricultural holdings was also obtained from the Village Tract/Ward Chairman. These additional lists will make the MCA 2003 more complete in coverage.

In 1993, 14 townships with problems on accessibility and security reasons were excluded in the main census. These townships are as follows:

- Ingyanyan Township in Katchin State;
- Townships of Papun, Myawady and Kya-in-Seikkyi of Kayin State;
- Townships of Lashi, Lahe and Nanyun of Sagaing Division;
- Kyukkyi Township of Bago (East) Division; and,
- Townships of Konkyan, Mongmao, Pangwaing, Narphant, Manphant and Pangyan of Shan (North) State.

In the Field Operations Manual (FOM) Appendix Table 2 shows the townships that were not covered by the 1993 Census of Agriculture which are indicated by the sharp sign (#). ANNEX 7 of the Enumerator's Manual shows the complete list of the 314 townships proposed for coverage by the Census of Agriculture in October 2003.

2. Subject Matter Coverage

The Myanmar Census of Agriculture 2003 is an expanded type of an agriculture census where the fisheries sector except establishment-based fishing, is included. The basic items included in the different census instruments followed the recommended subject matter coverage as contained in FAO's Programme for World Census of Agriculture 2000 (WCA 2000). It also included fisheries activities on the holding as a special feature of the WCA 2000. In addition to the FAO recommendations, information on fishing off the holding and aquaculture were also included in the data collection although they are not really part of the agriculture census programme.

In view of this, a complete census on household fishing and aquaculture is also covered in this MCA 2003 operation. Furthermore, a count of the population classified by sex has been included in the listing of households. Internationally accepted concepts in the conduct of a population census were used in the enumeration of the population in all areas covered by the Census covering both agricultural and fishing households.

The concept of "usual residence" or *de jure* concept of residence has to be emphasized to cover all members of the household regardless of their location at the time of the enumerator's visit to the household.

To recapitulate, the MCA 2003 instruments to obtain the structure of agricultural holdings and characteristics of the holder and his/her members that had been discussed in the ENs Manual are: the Agricultural Holding Questionnaire, the Commercial Livestock/Poultry Questionnaire, the Household Fishing Questionnaire and Aquaculture Holding Questionnaire.

As team supervisor, you have to understand the linkages of these questionnaires in the conduct of the nationwide census to produce two kinds of census results: the Census of Agriculture and the Census of Fisheries (Household Fishing and Aquaculture).

Chapter 2

SCOPE OF MYANMAR CENSUS OF AGRICULTURE 2003

2.1 Myanmar Census of Agriculture 2003

There are two census instruments that will be used to obtain the data in agriculture, namely: 1) Agricultural Holding Questionnaire (FORM 2003MAC-2) to obtain structural and other FAO-recommended items on the holding and, 2) the Commercial Livestock and Poultry Questionnaire (FORM 2003 MAC-3) to cover the operation of special holdings that produce mainly for sale.

1. Agricultural Holding (Household-based)

Section A.1 IDENTIFICATION OF THE HOLDING- indicates the geographic location of the holding where the name of the holder and his address are also included. These items are recommended items in the WCA 2000 Programme.

Section A.2 GENERAL CHARACTERISTICS OF THE HOLDER'S HOUSEHOLD – This section will list all household members starting with the head, the spouse, children from eldest to youngest, other relatives and other non-relatives staying with the family. Basic demographic characteristics are included such as sex, age, marital status, education and economic activity status.

Section A.3 LAND UTILIZATION AND LOCATION OF PARCEL - This section will obtain information on the structure of holdings by parcel in terms of actual land use under broad categories, i.e. land under temporary crops, land under permanent crops, land under fallow and other land, which can be compared with the type of land managed by SLRD. On the other hand, the information on the location of the parcel, will enable the aggregation of parcels comprising the holding by location of the parcel.

The FAO concept of location, in general, considers the residence of the Holder or operator as the location of the holding. There are cases where some parcels may belong to other townships but because of this concept, the tabulation of information will be attributed to the residence of the operator/holder. There is, therefore, a need to generate tabulation of the actual location of the parcel at the village tract level to have an accurate inventory of landholding at the village tract/ward level. This is in addition to the tabulation of the parcel where the operator resides, regardless of the location of the parcel.

Illustration:

Operator A resides in Village Tract A of Township A. He has a holding comprising of 3 parcels. Parcel 1 is in Village Tract A in Township A; Parcel 2 is in Village Tract B of Township B and Parcel 3 in Village tract C of Township C. To realize the impact of the location factor in the tabulation, let us give some figures, as follows:

Parcel 1 = 5.00 acres Township A, VT A
Parcel 2 =30.00 acres Township B, VT B
Parcel 3 =10.00 acres Township C, VT C
Total area of holding =45.00

In the normal tabulation, we will tabulate all the three parcels in the township where the holder was listed. In this particular case, the township is in Township A.

To illustrate, we have the following dummy format with entries for this holding:

Table 1. Size of Holding and Total Area of Holding in Township A

Size of Holding in Acres	No. of Holding Reporting	Total Area of Holding in Acres	Average Area of Holding
(1)	(2)	(3)	(4)
No land	2067	-	0
Less than 1	6175	2,655.25	0.43
1 - < 5	6,519	25,482.66	3.91
5 - < 10	7,580	53,470.36	7.05
10 - < 20	3,340	44,425.08	13.30
20 - < 40	636	17,244.78	27.11
40 and over	1	45.00	45.00
Total	26,317	143,323.13	5.45

Table 2. Number of Parcel by Location and Size of Parcel
(This is just to illustrate the example cited)

Location of Parcel	Total No. of Parcel	Total Area of Parcels	Size of Parcel in Acres											
			< 1		1 - <5		5 - <10		10< 20		20 < 40		40 +	
			No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Township A	1	5					1	5						
Township B	1	30									1	30		
Township C	1	10							1	10				
Total	3	45					1	5	1	10	1	30		

Take note that when the physical location of parcels was tabulated, Township A lost 40 acres of land. In other words, if we do not prepare a tabulation by location of parcel, then we will not get the true land area of a particular township or village tract. What was shown is at the level of township but it can have serious effect at the village tract level. That is why it is important that the enumerators should understand the significance of the location of parcel in terms of accuracy of land area of a particular place.

Section A.4 PERMANENT CROPS - Getting an inventory of productive trees is like taking a picture at a particular time. In the case of permanent crops only those that are

productive or bearing fruits are to be counted. It may be difficult to count the trees in compact plantation but if the plantation is orchard type where there is systematic way of planting there are certain standard distances of planting. Teach your enumerator to do some calculations based on an area of 1 acre.

$$\begin{aligned} 1 \text{ acre} &= 43,560 \text{ sq. ft.} & 1 \text{ hectare} &= 2.47 \text{ acres} \\ &= 4,840 \text{ sq. yard} \end{aligned}$$

As supervisor, you should go to some orchards in your area of jurisdiction and inquire from the holder or operator what is the distance of planting so that there is a more accurate basis in computing the density of compact plantation. For example, the most popular fruits are citrus and pomelo. In the case of citrus, the distance of planting is about 6-7 yards so that if we divide 4,840 by 49 sq. yd. then we estimate the number of trees to be about 98.8 trees or about 100 trees per acre. For bigger trees like pomelo, the distance of planting is 10 to 11 yards so that one tree occupies about 100 to 121 square yard. In one acre, there are about 40 trees of pomelo. Similar fruits with the same planting distances are coconut, mango, avocado and the like.

It is equally important to include the fruit trees around the house although this may not be in the same location as the holding. What is important is that these trees can be included so that production can be estimated more accurately although there is no land area involved. The Parcel Number should not be filled up if scattered trees are reported since no area is involved. Besides, the scattered trees may be found in several parcels sporadically located, thus the parcel number should be omitted. If there are entries of area, line them out.

In terms of intensity of land use, there may be cases where temporary crops are planted in between trees. These cases may be found in coconut-growing areas, or in areas where sugar palms (Toddy Palm) are planted. The temporary crop should be reported but be sure that the Parcel Number is indicated so that this will not create problem during processing. That is, the parcel number is identified as land under permanent crops but it is also possible that temporary or annual crops are interplanted at any time during the three cropping seasons.

In editing the questionnaire, pay attention to the codes of permanent crops and their corresponding parcel number.

Section A.5 ANNUAL/TEMPORARY CROPS – this section obtains two kinds of information. One is the intensity of land use. and the other is the cropping pattern. If one adds the number of times that a parcel was planted to temporary crops, the total effective area would be 3 times the physical area, if the entire parcel was utilized in three cropping seasons. For example, there are certain crops that can be planted 4 or 5 times a year and may be reflected twice as many in one cropping season than in the two other seasons.

To refresh your memory, we will reproduce the illustration on page 28 for Parcel 1 of the Enumerator's Manual .

Parcel 1 – Area is 5 acres planted to the following vegetables:

First cropping season: April – July 2002

The growing cycle for these crops is about 45 days, thus each cropping season the land had been planted two times.

Carrots - 1.25 acres - cabbage - 1.25 same land
 Cauliflower - 1.00 acre - cauliflower - 1.00 same land
 Lady finger - 1.50 acres - snake gourd- 1.50 same land
 Sweet pepper- 1.25 acres - Sweet peas - 1.25 same land

Second Cropping Season: August – November, 2002

Carrots - 1.25 acres
 Cauliflower - 1.00 acre
 Lady finger - 1.50 acres
 Sweet pepper- 1.25 acres

Third Cropping Season: December 2002 – March 31, 2003

Cabbage - 1.25 acres Lettuce - 1.25 same land
 Cauliflower - 1.00 acres Broccoli -1.00 same land
 Snake gourd- 1.50 acres Lady finger -1.50 same land
 Sweet peas - 1.25 acres Sweet pepper- 1.25 same land

Parcel No.	Physical Area (Acres)	1 st Cropping Season (April – July 2002)			2 nd Cropping Season (August-November 2002)			3 rd Cropping Season (December 2002 – March 2003)		
		Name of Crop	Code	Area (Acre)	Name of Crop	Code	Area (Acre)	Name of Crop	Code	Area (Acre)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	5.00	Carrots	2110	1.25	Carrots	2110	1.25	Lettuce	2090	1.25
		Cauliflower	2090	2.00	Cauliflower	2090	1.00	Cauliflower	2090	1.00
		Lady finger	2100	1.50	Lady finger	2100	1.50	Lady finger	2100	1.50
		Sweet Pepper	2100	1.25	Sweet pepper	2100	1.25	Sweet pepper	2100	1.25
		Snake gourd	2100	1.50				Snake gourd	2100	1.50
		Cabbage	2090	1.25				Cabbage	2090	1.25
		Sweet peas	2100	1.25				Sweet peas	2100	1.25
								Broccoli	2090	1.00
Total	5.00	Total	-	10.00	Total		5.00	Total	-	10.00

In the above illustration, a 5-acre crop land yielded an effective area of 25 acres, 5 times the physical area in three cropping seasons. Therefore, when evaluating the intensity of land use, take into consideration the growing cycle of the crop and whether or not a particular crop can grow in a specific season. Usually, when green houses are used, one can grow vegetables all year round. Also, when there is a supply of water either from rainfall or from artificial means like irrigation, one can also grow vegetables all year round.

Section A.6. LIVESTOCK AND POULTRY -

A.6.1 Current Stocks and Disposals in the last 12 months:- The purpose of this section is to capture the livestock and poultry raised by households in small scale. Remind your enumerators that only animals and fowls present at the time of visit will be counted to avoid double enumeration. Despite this rule, it is still possible that what has been enumerated in a particular day may be transferred to another holding and will be enumerated again since the duration of the census is from October 1 to November 15, 2003. This is the reason why this concept is further explained so that during the course of your spot-checking or re-interview of

the holding, you can inquire from the holder or operator if they have new acquisitions from other holdings during the period from October 1 to November 15, 2003. The enumerator can decide intelligently whether or not to include the new acquisition so long as the holding where the animals or birds were acquired has not been enumerated yet in the village.

Furthermore, it is very difficult to inquire about the ages of the animals. However, if these animals are already being used for work, then these can be categorized as 3 years old or more. In the technique of interview, start with the older ones by sex and then the younger ones by sex. The difference in the total would be in-between the old and the young.

The data on disposal is another approach of estimating the total production for both livestock and poultry. It may not be very accurate but it gives an indication of what has been consumed.

A.6.2 Sale of Dairy and Poultry Products:- The purpose of the question on sale of dairy and poultry products is to find out if the household derived some income from dairy and poultry products on a small scale. The products sold become part of available food supply in addition to the products produced by commercial livestock and poultry holdings.

Section A.7. AGRICULTURAL BUILDING, TOOLS, MACHINERY AND EQUIPMENT – In an agriculture census, it is very seldom that information on fixed assets such as buildings are given much importance, thus data on buildings and other structures are not usually available to provide estimate on the capital formation in agriculture. Durable equipment used in agriculture is also important as a means of assessing whether agriculture as an industry is progressing with the times. Emphasize to your enumerators the importance of recording the “wealth” of the holdings so that more accurate accounts in agriculture can be estimated.

Section A.8. EMPLOYMENT, FARMING PRACTICES AND OTHER INFORMATION –
There are seven subsections under this topic, as follows:

A.8.1 For household members 10 years old and over who worked in the holding from April 1, 2002 to March 31, 2003. – See illustration on page 33 of the Enumerator’s Manual.

A.8.2 Hired Labour – this subsection inquires on the manpower used in the holding during the reference year by sex and type of employment. This includes exchange labor.

A.8.3 Legal Status of Holder - the definition of the different classification of legal status can be found on page 34 in the Enumerator’s Manual. Most farmers in Myanmar belong to the “private individual” legal status. In some cases, the household is the holder so the legal status would be private household.

A.8.4 Main Source of the Income of the Household- Main source means at least 50% of the income is derived from a particular source. Again, try to assess whether or not the encircled code for income source is the logical source based on the resources of the household.

A.8.5 Purpose of Production - there are only two classification, namely: mainly for home consumption and mainly for sale. Mainly means more than 50% of the produce is either sold or for home consumption.

A.8.6 Improved Farm Practices – the items in this subsection are self-explanatory.

A.8.7 Environmental Problems Encountered during Agricultural Year, April 2002 to March 2003. Be sure that the cropping season is indicated if there were problems encountered during the reference year.

2. Commercial Livestock and Poultry Holding

Section B.1 IDENTIFICATION OF THE QUESTIONNAIRE-Information sought here is similar to the Agricultural Holding Questionnaire.

Section B.2 LIVESTOCK AND POULTRY - There are three subsections under this section, namely: Livestock (Large and small) ; Poultry; and, Disposal of Dairy and Poultry products. Some items sought under livestock are not found in the household type of livestock and poultry raising. These are the breeds of cattle and buffaloes. For poultry, there is detailed classification of chicken according to purpose and age, which is not present in the household-type poultry raising.

Section B.3 AGRICULTURAL CROPS AROUND THE COMMERCIAL AND LIVESTOCK/POULTRY HOLDING – the purpose of this section is to capture agricultural crops planted around the livestock/poultry farm if the household does not have crop holding. Therefore, this portion is intended to be filled up only when a household is engaged only in commercial livestock and poultry. However, if a household has a crop holding, the crops grown around the commercial livestock and poultry shall be reported as part of the crop holding and only the tending of animals and poultry shall be reported in Form 2003 MAC-3.

2.2 Household Fishing

The scope of the household fishing data collected is not limited to the fishing activities on the holding but also includes fishing activities outside the premises of the agricultural holding. It can also happen that a household is purely engaged in fishing and may not have any agricultural activity at all.

The questionnaire on household fishing include information on the location of fishing so that those that are fishing within the premises of the agricultural holding can be incorporated as part of the Agriculture Census results.

2.3 Aquaculture Holding

For aquaculture farm that is not part of a holding, there may be instances where some crops and trees are planted along the dikes and banks of the fishpond. While they may meet the definition of an agricultural holding because of the raising of crops, we will not treat these cases as agricultural holding because the lands used are classified as non-agricultural and may create some problems in the total land area devoted to agriculture, if we classify them as agricultural land. However, we will obtain data on the agricultural crops raised on the aqua farm.

Chapter 3

PREPARATION FOR CENSUS FIELD OPERATIONS

3.1 Preparatory Work Before Training

As supervisor, your duties are not limited to the supervision of the field collection of data. There are certain administrative jobs to be done before the third level training starts. As a team leader, it is your responsibility to prepare all the materials that would be needed during the training and during enumeration. There is possibility that you as supervisor will be attending the same training as your enumerators. It is expected however that you would prepare the materials needed for the training and field work. Before the training or as soon as the training materials arrive in the township office, the Township Officer will provide you the Supervisor's Manual and the Field Operations Manual for advance reading so that you can anticipate the requirements needed during the training and field operation. In fact, the Township Officer may solicit your assistance in preparing the Enumerator's and Supervisor's kits that will be distributed during the training.

1. Preparation of Enumerator's and Supervisor's Kits

The Enumerator's Kit for the Census of Agriculture would contain the following items:

- 1) Ballpen, color blue
- 2) Plastic Folder with clip to put questionnaires
- 3) Flat pad to put accomplished questionnaires, at least 5, one for each type of questionnaire.
- 4) Administrative Form MAC-1, Administrative Control Form to transmit accomplished questionnaires to supervisor
- 5) Administrative Form MAC-3 Daily Accomplishment Report for Enumerators
- 6) One copy each of the following questionnaires:

FORM 2003 MAC-1- Listing of Households form duly accomplished to serve as list frame for the conduct of the census.

FORM 2003 MAC-2-Agricultural Holding Questionnaire

FORM 2003 MAC-3 –Commercial Livestock and Poultry Questionnaire

FORM 2003 MAC-4 Household Fishing Questionnaire

FORM 2003 MAC-5 Aquaculture Holding Questionnaire

- 7) Calculator (if available)
- 8) Scratch papers
- 9) Enumerator's Manual

The Supervisor's kit will contain all of the above and the following additions:

- 10) Supervisor's Manual
- 11) Field Operations Manual
- 12) Administrative Form MAC-2 showing the deployment of enumerators under his supervision and their area assignment.
- 13) List of Wards and Village Tracts with the corresponding list of blocks and villages and their geographic codes.

- 14) Sketch maps of all the villages assigned to his team
- 15) Workload of villages under his supervision
- 16) Ball pen color green for editing questionnaires

2. Allocation of Census Forms and Supplies

On the basis of the workload of the villages under the team's assignment, the different census forms are to be allocated by village first, then by enumerator after the specific areas of assignments are already fixed.

Take note that in the allocation, the exact number as reflected in the workload shall be given to the enumerator. The 5% reserve given to each team supervisor should not be distributed yet. This will only be distributed when the first allocation is consumed.

3. Giving Assignments to Enumerators

The Deployment of Personnel shows the specific village which an enumerator is assigned. The Team supervisor should verify if the codes of the villages are correct because these codes shall be used in the identification of the village in the questionnaire. A Master List of Villages, Village Tracts/Wards shall be provided by your township officer. The list of Townships is found as ANNEX 7 of the Enumerator's Manual. Appendix Tables 2, 3 and 4 of the Field Operations Manual contain the list of Townships, districts under the State/Divisions. Be guided by the data that are also contained in these Appendix tables.

To be able to assist the township officer with his management and administrative responsibilities, the team supervisor should have some knowledge about the workings of the entire planning and execution phases of census taking at the township level so that he can adapt to the situations when called for.

In the Field Operations Manual, Appendix Table 1 shows two projected household population at the state/division level, with urban and rural classification. These two projections produced two different levels of estimates, the lower estimates were based from the General Administration file (G.A. file) while the higher estimates were based from the population projection published by Central Statistical Organization (CSO). These two estimates were prorated to the different townships under each state/division, after which these two figures were averaged as shown in Appendix Table 2 of the FOM. The "averaged" number of households was used in the determination of the total number of enumerators to do the listing of households and the number of holdings to be enumerated including the person days to enumerate all holdings, shown in Appendix Table 3 while Appendix Table 4 summarizes the estimated number of enumerators, supervisors, person days and the target date of completion per township. In other words, the workload for the main census by township is shown in Appendix Table 3, while the manpower requirements are shown in Appendix Table 4 including the estimated person days and the target date of completion of enumeration in each township.

The workload has been shown at the township level but not the workload of supervisors. However, your township officer will have to provide you with the exact workload and the number of enumerators before or during the training of enumerators. The workload at the ward and village tract level will be taken from the result of the listing operation done in April and May 2003. While most of the target dates of completion would be on November 15, it is also possible that the workload for a village tract level varies depending upon the number of

holdings to be enumerated, i.e. some may finish ahead of the target date but some may not be able to finish on the target date. It is in this situation where the role of the supervisor is critical. That is, if some enumerators finish way ahead of schedule, they may have to be transferred to an area where the assigned enumerator may not be able to finish on schedule.

Furthermore, the team supervisor should prepare a plan to allocate the different village tracts and wards given to him by his township officer to supervise during the enumeration phase. The person days have to be estimated based on the standard time in completing an interview, as shown on page 8 of the EN Manual, which is again reproduced here for easy reference.

Form 2003MAC-2, Agricultural Holding Questionnaire= 30-35 minutes
Form 2003MAC-3, Commercial Livestock/Poultry Questionnaire = 15 minutes
Form 2003MAC-4, Household Fishing Questionnaire = 10-15 minutes
Form 2003MAC-5, Aquaculture Holding Questionnaire = 15 minutes

On the average, an enumerator can enumerate from 10 to 14 holdings a day, depending on the type of activities of the household.

When the maps are given to the enumerator, the supervisor should give them briefing on how to read the map in case the enumerator is not familiar with the village. Assigning the same village to the surveyor who listed the households and prepared the sketch map is not encouraged. It is better to assign another so that there is some independence in the enumeration process. This is also a good opportunity to verify the accuracy of such listing.

3.2 Preparations before Field Work

1. Preparation of Itinerary of Travel

An itinerary of travel to visit your enumerators must be prepared ahead of time with the necessary arrangement with the enumerators to be sure that you will meet each other in the village. This is also one way of avoiding waste of time in looking for each other. Experience has shown that when one is interviewing and entering houses, there is always the probability that the team supervisor may not find the enumerator in the village although in truth he is really there. Thus, the necessity to prepare an itinerary of travel. Another advantage is that when the township officer wants to confer with the team supervisor, he would know where to find him

Those who are not familiar with an itinerary, this is a plan of travel indicating the date of travel, the time when leaving the office and the estimated time that he/she arrives at the destination. It also indicates exactly the place where the TS is going and the duration of stay and the name of enumerator to be visited. Always furnish the township officer of your itinerary. Prepare a weekly schedule 1 week in advance until the end of field operations. In case there is some changes in the itinerary, the town officer and the enumerators concerned should be informed accordingly.

2. Plan for Spot Checking of Enumerators

One of the main tasks of the Team Supervisor (TS) is to make sure that the enumerators (ENs) are doing their work in accordance with prescribed procedures and

accurate information required in the census. One way of checking whether or not the EN is really doing the assigned job is to conduct spot checks and to review questionnaires in the field. It is, therefore, necessary to prepare a plan to spot-check all your enumerators without their knowing it. Plan the spot checks when an enumerator completes the enumeration of one village. Plan for the following activities:

- a. With the use of the sketch map, verify the list of households using FORM 2003MAC-1 whether or not the households are listed in the order they are plotted on the map.
- b. Re-interview at least two households to be selected from among those in the list using the appropriate questionnaire.
- c. Compare the result of your re-interview with the accomplished questionnaire submitted by the enumerator.
- d. Another approach is to select at random from the accomplished questionnaires submitted. Visit the household and try to look for the member who was interviewed by the enumerator. Inquire about important data collected, i.e. the membership of the household, sex, age, activity status and the land use and parcel information. This manner of spot checking is directly verifying whether the entries made on the questionnaires were correct. A word of caution. The difference in information obtained even from the same respondent may be due to the memory bias of the respondent rather than error in recording.
- e. Inform the enumerator of the result of your spot-check. If the quality is good, congratulate the enumerator. If the quality is poor, call the attention of the EN so that he will improve the quality of data he gathers.

Chapter 4

FIELD SUPERVISION

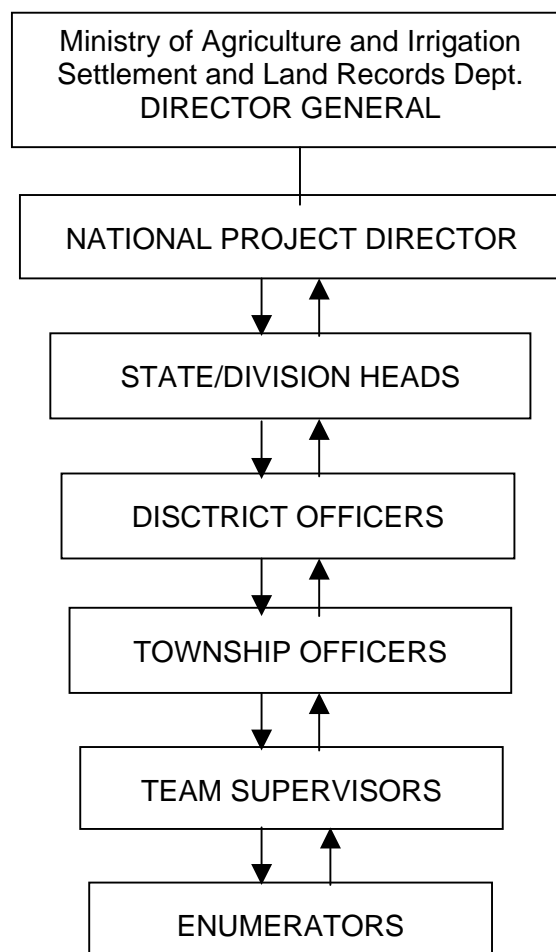
4.1 Hierarchy of Supervision

In the nationwide agriculture census operation, there are several layers of supervision and all instructions emanate from the National Project Director in the person of U Win Htoon Nee, the current Director of Planning of the Settlement and Land Records Department. To assist him in supervising the overall operations are the deputy directors and staff officers who are currently manning the different branches of the Agriculture Census Office, specially dedicated to the conduct of the MCA 2003.

In the field offices, the highest supervisor is the division head, who supervises the operation of the different districts and townships under his jurisdiction. The township officer is your immediate supervisor and you are the first line supervisor that controls the activities of the enumerators in the different wards and village tracts where the villages and blocks are located.

The following schematic diagram will show the hierarchy of supervision and the line of communication from the top to the bottom and/or vice versa as shown by the arrows.

Chart 1. Schematic Diagram of Hierarchy of Supervision and Channels of Communication of MCA 2003



4.2 Channel of Communication

All information like directives, instructions, reports, complaints, etc. regarding census operations are routed to the proper channel of communication as shown in the chart above. The arrows pointing downwards are the channels of communication and hierarchy of authority in decision making. Of course, the highest authority with respect to policy decision and allocation of resources emanates from the Minister of Agriculture and Irrigation through the Director General of the Settlement and Land Records Department. But with respect to the implementation of the operational procedures in connection with the Census of Agriculture, the National Project Director is the highest source of authority.

Adherence to proper lines of communication is essential in ensuring a smooth conduct of the census; and for an efficient flow of information among personnel involved in the census programme. The channel of communication from top to bottom follows the hierarchy of the line of command or line of supervision.

When the communication channels are not properly observed, it results to "short circuiting." Like in electricity when there is short circuit, the fuse is busted resulting in loss of electricity. This is also true for short circuiting in communication. This will result to miscommunication that may result in irreparable damage or loss. How do we avoid this when we are in a hurry? We can go direct to the Township Officer from Central Headquarters but copy-furnish the different channels for their information or immediate action. We are like in the battlefield, sometimes we have to make a decision on the spot because the situation demands it. It is better to make a decision when needed than not making at all. If that decision proved to be wrong, then rectify it later. Nobody is perfect, we all make some bad or wrong decisions but we should be honest enough to rectify when we become aware that the decision was wrong. This mode of communication is also true for the township Officer. When there is urgency in the situation that requires the approval of the highest authority, communication can be sent direct but copy-furnish the District Officer or the Division Head. When communication through the phone is possible, then do not short circuit the communication. In layman's parlance, this is "bypassing" the next in command and may create animosity among the field personnel. Avoid this kind of situation.

4.3 Role of a Team Supervisor

The census Team Supervisor, as the name implies, heads a team of 5 enumerators, more or less depending upon the workload in a township. Sometimes a team supervisor may be given more than 5 enumerators to supervise because of the proximity of village tracts and villages within a village tract, or less than 5 because the villages are spread out in wider areas. Whatever is the number of enumerators to be supervised, the team supervisor has a very important role in the conduct of the Myanmar Census of Agriculture 2003.

The Enumerator's Manual, Section 2.2 Role of the Supervisor, enumerates the specific activities of a team supervisor in relation to the supervision of enumerators.

Team Supervisors, like the enumerators, play a crucial role in the field because they are nearest the source of information. Like in the battlefield, they lead and the success of the operation therefore hinges on their dedication and perseverance.

The census will be coordinated and administered by SLRD township offices. The township office is the focal point. Township heads of SLRD offices shall serve as supervisors, and assistant township officers and inspectors serve as Team Supervisors while surveyors act as enumerators. The major responsibilities of the supervisors in brief are –

- Allocating assignments
- Distributing census materials
- Supervising field work
- See to it that enumerators adhere to instructions
- Making spot checks of interviewed households to check on quality
- Scrutinize completed questionnaires for completeness of entry, consistency and accuracy of geographic identification
- Assist enumerators who are not performing adequately
- Assist the enumerators on problems of non-response by accompanying them to the households concerned.
- Assist in the information campaign to drum up cooperation of the community where the TS is assigned.
- If necessary, retrain enumerators who have not been following prescribed procedures or those who did not understand concepts as prescribed in this census.
- See to it that the standard outputs prescribed are met by the enumerators by closely monitoring their daily accomplishments.
- Solving ambiguities in interpreting definitions, concepts etc. encountered during the interview process
- Transmitting accomplished questionnaires and forms properly batched, controlled and bound
- Performs other administrative functions as called for in the census programme.

The TS directly reports to the Township Officer who is responsible in the conduct of the Census of Agriculture 2003. The township officer in turn reports to the district officer. The district officer is directly responsible in implementing the census work plan among the townships in his jurisdiction. All district officers of a division or a state are under the direct supervision of the Division Head while all division heads are under the direct supervision of the Director General (DG). In this particular census, the National Project Director (NPD) is the Executive Officer of the SLRD in the implementation of the Census Plan. He works directly under the Director General.

Supervisory Work is essential in ensuring the quality of data collected. In the face-to-face interview the enumerator visits the households, interviews the operators or holders, and records the responses in structured questionnaires. These questionnaires had been pre-tested several times before these were finalized but sometimes there are situations which may not have been encountered during the pilot census and the problem is manifested only during the main census. To ensure the quality of information collected by the ENs all supervisors are required to spot check entries made by enumerators, to help prevent carelessness on their part in the accomplishment of the forms. Furthermore, spot checking the work of ENs would facilitate error detection and correction while enumeration is in progress. Supervisors are also responsible to oversee the whole

census operation as planned, without omission and double counting either of holdings or of items of interest. Close supervision of the enumerators' work and the regular review of the accomplished questionnaires are basic strategies to ensure good quality of census data.

4.4 Major Concerns of Supervisors

The major concerns of the Team Supervisor are not only to oversee the performance of the enumerators under him but also sees to it that the objectives of the Agriculture Census are realized. The major concerns are the following:

1. A 100 percent coverage of all holdings engaged in crop production whether for home consumption or for sale.
2. A complete count of all holdings, both household and special, involved in livestock and poultry raising both for home consumption and for sale;
3. Complete count of household members engaged in fishing on the holding and off-the holding
4. A detailed information on holdings engaged in aquaculture whether for home consumption and for sale;
5. Contribution of women and children to productive endeavor on the holding.

The quality of field enumeration can be controlled at various levels through the following procedures:

1. Observe the enumerators as they conduct the enumeration;
2. Conduct spot checks and re-interview some households;
3. Edit the questionnaires in the field so that corrections can be made since the respondents are there to provide clarification;
4. The township officer shall also spot-check his TS to ensure that he is doing his job.
5. The district officer should do the same, spot check to find out the quality of data collection.

4.5 Handling Enumeration and Other Field Problems

The team supervisor (TS) shall always be available to provide advice and help in resolving problems related to census data collection. Experience has shown that a solution to a specific problem may be applicable in one area but not in another area. The solutions discussed below are only suggested action to deal on a particular problem so that the TS should exercise his better judgement in resolving or overcoming problems in the field.

1. Refusals - these are common in urban areas where respondents would not even bother to invite the respondent inside his home. However, if there are cases of refusals, the EN shall introduce himself properly to the respondent, show his ID and explain the purpose of the visit and the importance of the Census of Agriculture to the food security of the nation. Emphasize to the respondent that all information provided by him will be treated confidential and only employees of the SLRD will have the authority to look at the questionnaire for purposes of computerization.

2. Callbacks – these are actual revisits to the household for the purpose of making appointment for interview of the holder or the head of the household or to clarify some information which were earlier obtained from the household but may require clarification. Callbacks are time consuming, expensive and bothersome but the EN has to do this to be able to complete the coverage of his area of assignment.

The following are the situations when an EN shall make a callback:

- a) Holder or Operator not at home – this situation is perhaps the most common problem of any EN when there is no competent person to provide the information. Two callbacks is needed before declaring the respondent holder as non-response.
 - b) Respondent is busy and has no time for interview. It may also happen that although the respondent is at home, he may not want to be interviewed or was busy at that particular time. The EN shall make an appointment in another time when the respondent is no longer busy or persuade the respondent to submit for an interview.
 - c) Entire household is away for sometime –inquire from the neighbors when the household is expected to come back. If you have no more time to call back, report this to your supervisor so that he will take care of the call back.
3. Households with incompletely filled out questionnaires – this may come about if suddenly the respondent has to leave for an important appointment at the middle of the interview, or the respondent refuses to continue with the interview for some reasons or another. The EN has to revisit the household to complete the interview. If for some reason the EN refuses to call back on the household, then the TS has to do the call back and explain to the respondent that it is very important that all questions in the questionnaire be asked, otherwise it will be imputed, which the respondent may not like.
 4. Other field problems – there may be some problems during the field enumeration that require personal attention or intervention of higher SLRD officials. In such cases, report the matter to the Township officer, who in turn elevate to the District level if he cannot solve the problem at his level. Some field operations problems may have something to do with accidents being met by ENs and supervisors, report on peace and order situation in some villages or township, or some losses or damage to census documents. These problems should be reported immediately to higher authorities.

4.6 Form to Record Daily Accomplishment Reports

To keep track of the daily accomplishments of enumerators and to keep tab on the progress of work, whether or not they are meeting the required output, a daily-weekly reporting system has to be installed by the Team Supervisor among his enumerators. Since this is a weekly reporting system, a half-bond size form shall be reproduced following the prescribed format below:

Administrative Form MAC-3 MYANMAR CENSUS OF AGRICULTURE 2003 DAILY ACCOMPLISHMENT REPORT From _____ to _____					District:..... Township:..... Name of TS..... Name of EN:.....
Date	Total Holding MAC-2	Total Comm L/P MAC-3	Total Fishing HHs MAC-4	Total Aqua MAC-5	REMARKS
(1)	(2)	(3)	(4)	(5)	(6)
Total					

INSTRUCTION ON HOW TO ACCOMPLISH ADM. FORM MAC-3

- Col. 1 - Date when the actual field work was done. The census field operation starts on October 1 up to November 15, 2003. But the person days allocation was based on a 6-day enumeration period, therefore the first week report would encompass October 1-4, then October 6-11; October 13-18 and so on.
- Col. 2 - Enter here the total number of Agricultural Holding questionnaire accomplished for that particular date.
- Col. 3-5 - same procedure as in col. 2. Just enter the number of questionnaires done for each type of questionnaire. If there is no commercial livestock and poultry, fishing or aquaculture enter a dash (-). This is understood to be zero.
- Col 6 - Remarks - This space is for notations of significant event during the day. For example you were not able to find anybody in the house, take note of this call back.

The above form shall be used during the Census and **must** be submitted to ACO, Yangon by the Township Officer. The summary of the accomplishment report if compiled by village tract/ward and township can serve as an advance count of the total agricultural holdings, commercial livestock and poultry, household fishing and aquaculture holding.

Chapter 5

EDITING OF QUESTIONNAIRES

5.1 Manual Editing of Questionnaires

The main task of manual editing of questionnaires in the field is to detect omissions, inconsistencies, and other obvious errors in the accomplished questionnaires so that if there are omissions or errors these can be easily corrected considering that the respondents are still within easy reach. The Team Supervisor, therefore, has to edit as many questionnaires as possible in order to make the necessary corrections while the ENs are still on field work. Field editing is the first attempt to control the quality of data collected.

1. Scrutiny of questionnaires

The first procedure in editing is the scrutiny of the questionnaires involving the verification of geographic codes for correctness of the code entered in the code box and a cursory look at the questionnaire if all questions have responses or entries.

Specifically, the following procedure is followed in the scrutiny of accomplished questionnaires to control the quality of census data:

- a. Verification of geographic codes - Geographic codes are found on the right portion or below the title box of the questionnaire. These codes are entered before enumerators make their house visits. Enumerators often enter identification codes only on the first sheet of the questionnaire and they would enter identification codes in the remaining sheets either on the field or at home later in the evening. Check for missing geographic codes. If there are missing geographic codes, refer to ANNEX 7 of the EN Manual for district and township codes. For village/block and ward/village tract codes, the township officer will provide each team supervisor a list of the areas assigned including their codes. Take note also that there is no need to code the State or Division since districts and townships have already been assigned unique codes.
- b. Verification of totals – Totals called for in the different parts of the questionnaire and in different questionnaires, for such items as TOTAL members of a household, MALE and FEMALE; TOTAL NUMBER OF PARCELS; TOTAL AREA OF HOLDINGS, number of hired labourers, heads of cattle, etc. should be verified. Check for component parts that might not add to totals.

For example: Check for the Sum of Total area of a given crop cultivated as pure stand, and Total area of the crop cultivated with others should be equal to the Total physical area in which the crop is cultivated; male + female = total, etc.

- c. Verification of consistencies of responses of related questions or related information. This is very important aspect of verification, especially in Form 2003MAC-2 for the following variables:

- Sex of members – should be consistent with the name of the persons. If preceded by U then the person is male or Daw for female. Aside from this, the Relationship to Head should also be consistent with the sex. Take note that if son or son-in-law, the code should be 3 and the sex should be 1. If daughter or daughter-in-law, the code should be 4 and the sex should be code 2.
- Age can be verified according to the order they are listed in the membership column. For example, the head is the father and the spouse is the mother. Check the age of the eldest child listed. The age of the parents should be at least 16 to 18 difference between the first child listed. If less than this, then there is need for further investigation. If a mother gave birth at the age of 16, she may have gotten married or got pregnant at the age of 15. Under Myanmar cultural practices, a decision can be made whether to accept this as a boundary case or not. If not accepted, there are two possible ways of making corrections: (1) the age of the parents can be changed if the ages of the children are acceptable in terms of distances.
- Highest Grade Completed - The grade reported especially for children should be consistent with their age. For example: If the child is 5 years old, he/she has not completed any formal grade yet because at the time she was accepted in school she was only 5 years old. For a 6-year old child, it is possible that he/she has completed Grade 1 and so on.

Illustration:

TOTAL 6 MALE 3 FEMALE 3

Line No	Name of Household Members	Rel to Head	Sex		Age	Highest Grade Completed	
			Code				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Father-head	Head	1	① 2	45	h.s.grad	6
2	Spouse	spouse	2	1 ②	23	Grade 5	4
3	U Kyaw Lin	son	3	① 2	18	college	7
4	Daw	daughter	4	1 2	15	h.s	5
5	Daw	daughter	4	1 ②	10	h.s	5
6	U Win Thein	son	3	1 2	6	Gr 1	3

In the above illustration, we deliberately made some mistakes in filling up the form to show how editing can be done. What are the errors noticed and the inconsistencies observed and missing entries, if any.

- 1) Let us assume that the entries in Col. 2 are correct so we will edit Sex and age in relation to the membership.
- 2) Relationship to head is O.K. and the corresponding codes correct.
- 3) Sex-
 - Line No 4 has no encircled code, therefore, encircle 2 because the member is a daughter and therefore female.
 - Line No. 5 the member is a daughter as shown in col. 3 and the code is 4 in col. 4 but what was encircled was code 1, which is wrong. Code 2

should be encircled and the encircled code 1 should be crossed out, as shown in the illustration.

- Line No. 6 has no encircled code but the member is a son as shown in col. 3 with a code of 3. Therefore, Code 1 should be encircled in col. 5 since this member is male.

The above errors are commonly observed when enumerators do not review the questionnaire after interview, especially the sex because they know already the sex of the member based only on their names. But when machine processing comes, there will be no entries in this column and therefore will create inconsistency in the data.

- 4) Age – If one examines the ages of the members of the household, the ages of the children seem to be OK in relation to the father. That is, the eldest child is 18 years old and the father is 45 years old, an age difference of 27, which is acceptable. However, when the spouse is compared with the eldest child, the age difference is only 5 years. Therefore, the age of the spouse is questionable. One cannot just change the age of the spouse because it may be correct. In other words, perhaps the spouse is not the mother of the children. An inquiry from the enumerator is in order. Case like this one warrants some explanation within the questionnaire so that it would be easy to edit. However, when this problem has reached the processing center where it is impossible already to contact the enumerator, a decision has to be made. Based on the above situation, it is logical to correct the age of the spouse. When correcting the age of the female spouse, the standard procedure is to correct the age by subtracting 2 years from the age of the husband. In this case, the age of the spouse should be corrected to become 43 years old. With this age, she was 25 years old when she gave birth to her first child. which is acceptable.
- 5) Highest Grade Completed - The edit of this variable in relation to other demographic variables is only possible for children of school age up to age16 when the child is expected to graduate high school. We cannot provide edit procedures for adults except for children who continuously went to school until they graduate from college with at least an age of 20 for a 4-year course. Other than this, we have to accept whatever is the entry for adults.

We will assume that age is correct, after evaluation and correction so that any inconsistency with age with the highest grade completed should be corrected. The following should be the basis for editing the highest grade completed for inconsistent entries:

Age	Highest Grade Completed	Code
5	No grade completed	1 or 2 if attended Kinder
6	Grade 1	3
7	Grade 2	3
8	Grade 3	3
9	Grade 4	3
10	Grade 5	4
11	Grade 6	4

12	Grade 7	4
13	Grade 8	4
14	Grade 9	5
15	Grade 10	5
16	Grade 10 graduate	6
17	First year college	7
18	Second year college	7
19	Third year college	7
20	4 th year/graduate	8

- d. Verification of encircled codes for pre-coded replies and if there is write-in entry in columns requiring such.

Team Supervisors should use green ball pen in editing questionnaires in the field. Never use any other color of ball pen. Office editors will use red ball pen.

During the Training of Enumerators, impress upon the prospective enumerators that it is very important to verify the codes being encircled for consistency of entries and for completeness of entries because during editing, no one can do much about missing entries but to call back on the household-respondent to complete the information. It will save him considerable time to examine the questionnaire for completeness before leaving the household. The illustration of incomplete entries and wrong code encircled has been presented above.

2. Editing of Agricultural Holding Questionnaire

The detailed editing procedure for the Agricultural Holding Questionnaire is discussed below.

A.1 IDENTIFICATION OF THE HOLDING -

Check if the codes that are entered opposite the geographic area is correct. ANNEX 7 of the Enumerator's Manual contains a master list of geographic areas in the country down to the township level. For codes below township level, your township officer will provide the codes for areas assigned to each team. Take note that the codes for the State/Division and District are not called for. The code of the township is enough to classify the village tract/ward. Using a green ball pen, line out the wrong code then enter above it the correct code. Do this for all the pages of the questionnaire. If there is not enough space to write above the wrong code, write the correct code on the right side of the code boxes as illustrated below.

Division: Sagaing
 District: Kale
 Township : Kalewa

0	2	4
---	---	---

 0 4 2

Based on the codes in ANNEX 7, the code of 024 is not correct because this is the code of BAWLAKE township in KAYAH STATE. Errors in coding are usually of this type when the numbers are inverted.

The other codes for the village tract/ward and village/block should also be verified to ensure that the codes are correct.

For the HSN and HCN, these two identification numbers can be verified from the list frame, Form 2003MAC-1. Be sure that the questionnaire bears the correct identification number to facilitate linking with other questionnaires, if there is a need to do so.

A.2 GENERAL CHARACTERISTICS OF THE HOLDER'S HOUSEHOLD-

This section calls for the enumeration of all household members starting from the Household Head to the last member of the household.

- a) Verify if the last line number in Col. (2) "Name of Household Members" as of time of visit of the enumerator" is the same as that entered in "TOTAL" members. If not the same, count how many are male members by looking at the name and Sex column. Compare this counted number with the entry above the table. If your count does not tally with the number entered in the code box, line out entry in the code box then write the correct data above it. Add this figure to the female entry. If the male and the female entries tally with the "TOTAL" then accept the data.
- b) Relationship to Head - If individuals in a polygamous family are being recorded, it may be advisable to list the children of each wife, in accordance with the number of the wife, i.e. first wife, list the children from eldest to youngest; second wife, list also the children from eldest to youngest, and so on. If all the wives and then all the children are listed, no one child is identified with the mother. Recording the children immediately after the mother also helps enumerators to spot errors of reporting since one can pick out the child who appears to be too old, or too young, to be born to a particular woman. If this is not done during the enumeration, either the supervisor visits the household or the enumerator has to revisit the household to enumerate accordingly.
- c) Sex - Myanmar names are sex specific; 'Ma', 'Daw', etc. precede the names of females, and 'Maung', 'Ko', 'U', etc. that of males. Check for compatibility between name qualifier, and gender code. If in error, rectify the encircled code by crossing out the wrong code then encircle the correct code. This has been illustrated earlier.
- d) Age - Infants are generally under reported. Newborns are likely to be missed in reporting, for they might not given names yet. Even children under five are also not reported for they are not involved in economic activities. Dates of birth, if recorded, allow both respondents as well as enumerators to calculate the age. People tend to state their ages in round numbers; sometimes in multiples of five or any figure nearest to their age. A simple check for detecting any discrepancy in age reporting of members of a household is comparing the age entry for children with the age of the head of household. Age accuracy can be determined and corrected only after the output tables are generated by analyzing the age distribution but this would be too late. If there are missing entries on ages, do not impute. It is either the EN assigned in the area has to make a call at the

households and inquire about the missing ages or leave it blank and the computer will do the imputation for the missing ages during processing time. In the final editing in the office, all with missing entries are usually assigned a "99" code. For age, however, it may not be advisable especially if there is a member who is really 99 years old. So some other codes for missing age should be thought of based on the Pilot Census experience.

- e) Education – See to it that there is an entry for members aged 5 years and over. If there is a missing information on education call the attention of the enumerator.

The following characteristics are to be asked only of members who are at least 10 years old:

- f) Marital Status - Cultural norms prescribe the age when to attend school, the age for finding work, the age to get married, etc. Check for age that is too young or too old to marry. Wives are often junior to husbands by about 2-4 years. Again for missing data, try to decipher whether single or married. Since we have a specific order of enumeration, write code 1 for children listed as members of the nuclear family. Refer to concept of a household in Chapter 3 of Enumerator's Manual.
- g) Columns (11) and (12) are related questions and therefore must be understood well the meaning of the question and the information sought.

"Did _____ work at anytime from April 1, 2002 to March 31, 2003?"

This question, if the reply is Yes (Code 1) means that the person had a job during the reference period of one year. Only 10 years old and over are to have responses in col. (11). Recall that starting Marital Status column, there was already a line out instructions for members less than 10 years old. So your examination of entries under column 11 should be concentrated only for 10 years old and over. If the order of enumeration has been followed, the line out members should be on the lower part of the list of members among nuclear family members. Do not forget though to look at the bottom of the list for non-nuclear members who are living with the household for the question on work.

If the answer in col (11) is Yes, Code 1 encircled, then there should be an answer in Col. (12), and if the household has an agricultural holding then all those that have a job will answer Section A.8 Employment, Farm Practices and Other Information on the Holding. For those who answered No, Code 2, they will not answer any questions on employment.

In col. (12), the activity status where the member worked during the reference period is encircled. Only one industry however is allowed to be encircled. If there are three or more industries where the member were engaged in during the reference period, report only that industry where he worked most of the time. If he worked more or less of the same duration in all the three or more industries, then the industry which he would like to be

associated with will be chosen, or the industry where he had worked the longest time not only during the reference period but also during past years.

A.3 LAND UTILIZATION AND LOCATION OF PARCEL –

The list of parcels to be included are those that were operated on during the reference year and still under the management of the holder at the time of interview. There are only 6 parcels that can be accommodated in this section. If there are more than 6 parcels, another questionnaire should have been filled up.

TOTAL NUMBER OF PARCELS _____ TOTAL AREA OF HOLDING _____

The entries in the above blank spaces can be checked by referring to column (1) for the TOTAL NUMBER OF PARCEL and the TOTAL AREA OF HOLDING in column (7). If what is entered in the boxes do not conform with what is in the table, make the necessary correction, following the entries in the table.

It is equally important that the kwin number is obtained (col 2) to be able to relate this parcel in the Cadastral maps.

Columns 3 to 5 call for the location of the parcel at the township level, village tract and village. As discussed earlier, this information is a vital one since the area of the parcel will be aggregated where it is geographically located, regardless of the place of residence of the holder/operator.

In Col. (6) the information of the Land Type can be seen from the TAX TICKET held by the landholder. Verify from the village map if such land identified is found on the cadastral map.

Col (7) to (11) pertain to the land area of the parcels by land use classification during the reference year. Take note that the homelot is included in col. (11) if the area is at least 0.01 acre (1/10 of an acre). Otherwise, line out the entry in this column if less than 0.01 acre. Also included in this column are lands classified as squatter land. For this kind of land, we do not expect that it has a kwin number but the location of these lands must be identified. Furthermore, the type of land classification is Code 8, meaning "Squatter."

A.4 PERMANENT CROPS

In the Land Utilization Section, Col (9) indicates the presence of Land under permanent crops. There should be an entry on the parcel in col (3) for permanent crops, if planted with permanent trees or plants in a systematic manner classified as compact plantation. Also the name of crop is entered in Col. (1) with the crop code in col. (2). Take note that the code of permanent crops starts with 1 and the second two numbers represent the sequential and consecutive numbering of the crops.

Validate the number of trees entered in col (5) against the entries of the area of compact plantation in col. (4). On page 10 of this manual, some discussions have been presented on the approximate number of trees per acre, i.e. about 40 trees of the size of pomelo tree or mango per 1 acre and about 100 trees for the size of

citrus trees per acre. It was also suggested in the instruction discussed that actual visit to orchards or compact plantation be made to have some facts on the actual density of trees per acre. For example in coconut and in coffee, if the method of planting is triangular instead of square, there can be more trees to be planted per acre. The supervisor has to have knowledge of these practices in the area of supervision to be able to validate the entries under this section.

Remember that if the trees being reported are scattered trees, there is no need to report the area, therefore there should be no entry also in the parcel number. For the convenience of keypunchers, the TS can line out cols. 3 to 5 if what is being reported are scattered trees.

In one holding, it is possible that there is both compact plantation and scattered trees of different kinds. You can instruct your enumerators to start first with compact plantations, then on the lower portion of the table, the scattered trees so that validation later would be easier on the TS' part. Only 10 different crop trees can be accommodated in this form. If there are more than 10 kinds of fruit trees, another sheet is required to be accomplished. Again, the necessary ID of the other set of questionnaire must be accomplished then insert this in between sheets 2 and 3 of the Agriculture Holding Questionnaire.

A.5 ANNUAL/TEMPORARY CROPS

The information that are gathered here refers to the intensity of land use and may also be related to the questions on employment of household members on the holding, especially the questions on the involvement of work on the holding and also the location of the parcel in section A.3.

On page 8-9 of this manual, there was an illustration made on the intensity of land use and the location of holding involving the three cropping seasons. It is, therefore, important for the enumerator to realize the significance of the intensity of land use because this will depict the productivity of the soil.

Take note that the crop code involves 3-digit code starting with digit 2 for all temporary crops so that the enumerator has to be careful in coding of the permanent and temporary crops.

There are only 8 lines provided to enumerate the temporary crops raised on the holding. The instruction is to draw a straight line after the accomplishment of a parcel, therefore the actual number of crops may even be less than 8. If additional lines are required, an additional sheet should be accomplished. Again the ID for the additional questionnaire should be accomplished and insert in between the 2nd and 3rd sheets of the questionnaire.

Also as a reminder, there is possibility that a temporary crop was planted to land under permanent crops. There is no conflict here, the area planted to temporary crop should be reflected in Section A.5 and the area planted to Permanent crops will be in Section A.4.

A.6 LIVESTOCK AND POULTRY -

A.6.1 - Current Stock and Disposals in last 12 months.

On page 8 of this manual, there are explanations on how the livestock and poultry inventory has to be collected to avoid duplication. Despite this, there is still the possibility of double enumeration but we have no way of determining this except when only one enumerator is assigned to a village and the transfer of animal stock is during the duration of the census within the village. We have no more control on transfer of stock outside the village.

There is also difficulty in determining the ages of animals but the enumerator has to try his best to get an approximation of the ages of the livestock, especially cattle and buffaloes.

As earlier explained, the disposition figure would give an indication of total production that became part of food supply.

A.6.2 Sale of Dairy and Poultry Products

The products listed are the most common products produced at the household holding level. What is important is to know whether the holding contributes to the supply of food to the population. The information here should be consistent with the entries in A.6.1. If there is milk production, then there should be cattle-dairy or buffaloes-dairy in the current stock of livestock. The same holds true for chicken, ducks and quails. The volume of milk or quantity of eggs sold should also be consistent with the number of livestock producing milk or number of hens/birds laying eggs. If inconsistent, call the attention of the enumerator. You cannot just edit entries here.

To have an idea of the volume of milk from a cow for validation purposes, inquire from a farmer who has a milk cow. A milk cow may yield milk for at least one year but the production varies with time. On the average, a cow produces about 240 viss a year. This is the same for poultry. At certain times of the year, the hen may stop laying because it is molting season so for purposes of validating the volume being sold, the TS should have an idea of the average number of eggs a chicken can produce during her lifetime as a layer. On the average, a laying hen can produce 110 eggs per year.

A.7 AGRICULTURAL BUILDINGS, TOOLS, MACHINERY AND EQUIPMENT-

A.7.1 Agricultural Buildings

These are non-residential structures. If the first floor of the house is used for sheltering animals or for keeping some stocks, this is not considered as the livestock or storage shed. However, in a lean-to constructed but attached to the house wall, then we can consider this as an animal shed or storage shed, as the case may be.

A.7.2 Tools, Farm Machinery and Equipment

There is not much problem in editing this portion of the questionnaire except reasonability of the number reported. For example, the size of the holding is very small but the reported tools and equipment are so many. In such cases, a visit to the holding is necessary.

The powered machinery and equipment listed from No. 13 to 20 should be used mainly for agricultural production. For instance, the motorboat and the motorcycle are mainly used for agricultural production to be included in this section.

A.8. EMPLOYMENT, FARM PRACTICES AND OTHER INFORMATION ON THE HOLDING-

A.8.1 For household members 10 years old and over who worked in the Holding (April 1, 2002 to March 31, 2003). -

Verify in Section A.2, col.12 those that responded with Code 1 Worked on own agricultural holding the entries in A.8.1 if all the members are accounted for. Be sure that the line number are correctly entered because some demographic characteristics of the members may have to be picked up from Section A.2 during the tabulation process, e.g. age, sex, highest grade completed, etc.

A.8.2 Hired Labour (Includes Exchanged labour) – Did this holding hire outside labour in the operation of the holding at any time during the reference year? The reference year refers to is from April 1, 2002 to March 31, 2003. If the reply is Yes, the table should be accomplished. However, even if the answer is Yes but there are no entries on the table, then change the reply to No. That is, encircle No but cross out the first reply of Yes.

If answer to the question is Yes, there should be entries on total number of employees by sex and by type of employment. See to it that the details equal the vertical and the horizontal totals.

In the following subsections that are pre-coded, there should only be one response for every question. The appropriate code should have been encircled.

A.8.3 Legal Status of the Holder

A.8.4 Main Source of Income of the Household

A.8.5 Purpose of Production –accept one entry only since the classification is “mainly”

A.8.6 Improved Farm Practice – expect an entry in area if the response to any of the farm practices is Yes.

A.8.7 Environmental Problems Encountered during Agricultural Year, April 1 2002 to March 31, 2003 - Expect an entry in col. 4 (area affected in acres) and col (5) if the response is Yes (Code 1). The crop should have a code. Permanent crops have 3-digit code starting with 1 while Temporary crops start with 2. It is important that the cropping season when the problem occurred should be known.

3. Editing Commercial Livestock and Poultry Questionnaire

This questionnaire is accomplished only if the raising of livestock and poultry is mainly for sale. "Enumeration Particulars" should be accomplished by the Enumerator for all the questionnaires. Do not forget to sign in the space provided after editing the form.

B.1 IDENTIFICATION OF THE HOLDING –

Like in other questionnaire previously discussed, this portion should be verified 100% to ensure the accuracy of the geographic identification of the holding. The HSN (Household Serial Number) is also the link with the Agricultural Holding Questionnaire.

Is this commercial livestock/poultry holding part of the agricultural household holding?

1 Yes 2 No

If Yes, Is the operator of this activity the same as the holder of the agricultural holding? 1 Yes 2 No

If No, is this independently managed from the agricultural holding? 1 Yes 2 No

The above series of questions provide a link of this holding with the agricultural holding.

B.2 LIVESTOCK AND POULTRY

B.2.1 Livestock - Col (2) indicates the presence or absence of large animals for sale either for food or as draught animals. There should be entries in the other columns if there is a Yes response. The table listed the large livestock that are normally found in a livestock holding although for meat purposes, only four animals were listed. Be sure that the breed is indicated for cattle and buffaloes.

Small Livestock - Like in the large animals, only the most common small animals in the holding are listed.

B.2.2 Poultry- In commercial raising of poultry, the products usually produced are: chicks for hatcheries, eggs both for table and for hatching, and meat. It may not be difficult for the holder to provide the information so it is expected that there is not much problem in the editing of this portion of the questionnaire.

B.2.3 Disposal of Dairy and Poultry Products - If there is no disposal, then there is something wrong because this is supposed to be a poultry farm raising either chicks, eggs or chicken/ducks/quails for sale. There should be some explanation, unless the holding is newly established.

B.3 AGRICULTURAL CROPS AROUND THE COMMERCIAL LIVESTOCK/POULTRY HOLDING – This question tries to capture the coverage of fruit trees planted around the livestock or poultry farm or annual crops planted as animal feeds like maize or fodder. If this holding is not part of a crop holding, then this portion must be accomplished.

4. Household Fishing Questionnaire)Form 2003 MAC-4

This is a one-page questionnaire to capture the fishing activities of households whether conducted within the premises of the holding or outside the premises of the holding or purely fishing activities of household members where the household did not have any agricultural holding. In the discussion on coverage of the MCA 2003, the recommendations of FAO as far as inclusion of fishing is concerned are to include only the fisheries activities undertaken within the holding. However, the coverage of the census was expanded to include not only fishing activities within the holdings but also outside the holding including fish culture or aquaculture.

There are three screening questions to find out what type of fishing activities is engaged in by the members of the household. It is possible that several members may have different fishing activities thus the questionnaire is supposed to summarize all these activities.

C.1 Did any member of the household engage in fishing on the agricultural holding?

Whether the answer is Yes or No, the next question is asked.

If the answer is Yes, then this fishing activity is part of the agricultural holding.

If the answer is No, then we have to find out if some members are engaged in off-farm fishing.

C.2 Did any member of the household with agricultural holding engage in fishing off-farm?

If the answer is Yes, then this fishing activity is engaged in by members outside the holding., C.4.1 is accomplished

If the answer is No, the next question is asked.

C.3 Did any member of the household without agricultural holding engage in fishing off-farm?

If the answer is Yes, C.4.1 is accomplished.

If the answer is No, then this household is not a fishing household if in C.1 and C.2 there is no Yes reply. If this is the case, there was something wrong in the list frame because there should be a Yes in any of the three questions, C.1; C.2 or C.3.

C.4 If Yes in any of the above questions, accomplish the table below.

C.4.1 Fishing Information - The table to be filled up has 8 columns as follows:

Column (1) and (2)- Fishing Location and Code - Examine which code is encircled. If the fishing activity is in paddy fields or irrigation canal, it is understood that the fishing activity is on the holding. If the fishing location is in rivers, stream, lake, mangrove, etc., the fishing activity may have been outside the holding or the household does not have any agricultural holding but engaged only in fishing.

Col. (3) (4) (5) & (6) - Who among the household members fish/collect fish or aquatic plants? Be sure that the total number of members entered under these 4 columns does not exceed the size of the household as enumerate in the agricultural holding questionnaire or as listed in Form 2003 MAC-1 Listing of Households.

Col (7) Type of Gears Used (Enter Code) - The list of fishing gears is found on the right side of the table. Assess if the fishing gear is compatible with the fishing location. For example: gill net cannot be used in paddy fields, fishing rod may be appropriate for rivers and other bodies of water, cast net also not possible in paddy field.

C.4.2 Is boat used for fishing? – Evaluate the responses in the fishing location if it is possible to use boat. For fishing on the holding, boat cannot be used because of the presence of plant. Boats can be used in rivers and seas.

C.5 Agricultural Crops Around the Residential Lot - Only households who do not have any agricultural holding shall have entries in this section. Specifically, those who answered Yes or No in C.3.

5. Editing of Aquaculture Holding Questionnaire (Form 2003 MAC-5)

This is a one-page questionnaire that is accomplished only if there is an operator of aquaculture holding, as screened in Form 2003 MAC-1 LISTING OF HOUSEHOLDS or if the holding is found on the list of Special Holding.

The questionnaire has been designed to capture activities of aquafarms that are engaged in fish culture whether for home consumption or for sale, regardless of the size of the production facility, be it a nursery/hatchery, paddy field, pond, pen, cage, or cement tank.

Review the entries in the Enumeration Particulars before you go to the different sections of the questionnaire. Examine all the questionnaires submitted and try to find out if the enumerator has filled up the items. After you have reviewed the questionnaire, append your signature in the space provided.

D.1 IDENTIFICATION OF THE HOLDING

It is necessary that the geographic identification is accurate and that the codes are also correct. This should be verified 100% to ensure their accuracy. The HSN (Household Serial Number) is the only link of this holding to the Agricultural Holding Questionnaire, if it is part of the holding.

D.1.1 Is this aquaculture activity part of an agricultural holding? 1 Yes 2 No

1. If Yes, what is the Holding Control Number (HCN)?

2. If No, is this aquaculture activity operated independently by a member of the household?

Question 1) above links this questionnaire directly with the Agricultural Holding Questionnaire while Question 2) identifies that this is an independent holding but managed by a household member and not the head.

D.2 Aquaculture Activities

D.2.1 Production Facility- There are several types of production facilities which shall be defined later.

Entries expected of the table showing production facility and other columns should be properly filled up. It is unlikely, however, that many production facilities will be engaged in by a holding. Again, if the holding is an aquaculture farm, there should be an entry in any of columns (6), (7), (8). However, there may be cases where the production facilities like rice fields or fish ponds having several parcels and of different location. In cases like these, the production facility should be entered in col. 1 as many times as there are different locations. But if the different rice fields or ponds are located in the same village, the gross areas have to be reported. The supervisor should brief his enumerators because these are the changes that were made which may not have been reflected in the EN's Manual.

Because the production facility is no longer pre-printed in col. 1, therefore write-in entries are expected other than the hatchery/nursery facilities. The units of reporting are all in sq. ft. for other production facilities. It is only rice fields where the area is reported in acre. However, if the pond is only a small portion of the paddy fields, then the area should be reported in sq. ft. Remember the difference between fishing and aquaculture.

Brief description of the production facilities to guide supervisor in editing the questionnaire:

Hatchery/nursery - Generally hatchery/nursery refers to installation for housing facilities for breeding, nursing and rearing of fish, invertebrates or aquatic plants to fry, fingerlings or juvenile stages. This facility may include jars, often conical in shape, made of glass, fabric, special tanks for collecting egg spawns, syringes, plastic tubes or bags for algae cultures. In some countries the seed stock for seaweed culture is also propagated artificially. These nurseries are propagated under captive condition or artificially bred.

Paddy field - This facility refers to a portion of a rice field where fish is stocked with seed and rearing them to any marketable size as long as there is standing water. (Rice-cum-fish culture)

Pond - is a facility for breeding or rearing of fish in natural or artificial fresh, brackish and sea water enclosures in which at least one, but usually all, surfaces are constructed from soil. Pond culture is usually carried out in stagnant waters with periodic water exchange or water flushing is done through inlets and outlets.

Pens, cages – this facility involves the rearing of aquatic animals or plants within fixed pens or floating cages net enclosures. The pens and cages may be set in lakes, rivers, reservoirs, canal systems, mining pools, bays, coves, estuaries, or in open sea. The enclosures are usually supported by frameworks made of metal, plastic, bamboo or wood.

Cement tanks – are structures made of cement of varying sizes that are generally built above ground level. Tanks can be round, oval (D ended tanks) or four-sided and vary in size from 1 to 25 meters. These tanks are usually stocked at high density with fish

and usually have an inlet pipe for clean oxygenated water and a waste outflow pipe and, depending on size, may also have paddle wheels or other types of aerators to supplement oxygenation.

Others – include facilities like rafts, ropes or stakes usually used to culture shellfish, notably mussels, and sea weeds usually conducted in open waters using rafts, long lines or stakes.

Columns (3), (4), and (5) require write-in entries and the codes for Col. (5) are found on the lower right side of the questionnaire.

Col. (6), (7), and (8) -These questions are answerable by a Yes or a No coded 1 for Yes and 2 for No.

Columns 6 and 7 questions confirm whether this holding is aquaculture or plain fishing. If there is a Yes response to any of the two columns, then this holding is an aquaculture holding. If the reply is No to both columns and the production facility is paddy field, then the activity is fishing and not fish culture. In which case, MAC-4 should be administered instead.

Col 8 – The question is whether the holding sells its catch. This is answerable by a Yes or a No.

Col. (9) –Location of Production Facility – the entry here should show the township as well as the village where the facility is located.

D.2.2 Machine/Equipment Used: Encircle code. - Verify if there are responses for all the items on the question on machinery/equipment used.

Chapter 6

POST-ENUMERATION ACTIVITIES

The post-enumeration phase of the Myanmar Census of Agriculture is the last phase of census field operation. Thus, the submission of accomplished questionnaires is the most crucial part of the post-enumeration phase of the census undertaking.

6.1 Submission of Accomplished Questionnaires to Township Officer

1. Accomplished Questionnaires

The Team supervisor is responsible in submitting the accomplished census questionnaires to the office of the Township Officer together with the summary reports and required administrative forms. However, before submission, certain procedures in batching the questionnaires have to be done.

The questionnaires must be batched according to the following arrangement and order:

- 1) FORM 2003 MAC-2 Agricultural Holding Questionnaires should be the first to be batched. The questionnaires must be arranged according to HCN from 1 to n, and batched by village. Stack all batched villages together arranged according to the code of the village and bind them in a flat pad for one village tract or ward.
- 2) In a separate flat pad, arrange the Commercial Livestock and Poultry questionnaire in accordance with the Questionnaire ID (Q_ID) number consecutively from 1 to n per village tract.
- 3) In a separate flat pad, arrange the Household Fishing Questionnaire in accordance with the Questionnaire ID (Q_ID) number consecutively from 1 to n per village tract.
- 4) In a separate flat pad, put all the aquaculture questionnaire arranged according to the sequential order but may not be necessarily be consecutive by village tract, if there are many. Otherwise, batching will be for the entire township, later on after all team supervisors submit their accomplished questionnaires.
- 5) Use Administrative Form MAC-1 to control the number of questionnaires in each flat pad to be placed at the top of the file. Secure the file by tying the ribbon of the flat pad.
- 6) Put all the batched questionnaires in a box or sack arranged according to the order of the code of the village tract/village.

Seek the guidance of the Township Officer in case of doubt on the procedure on how to batch the questionnaires before submission.

2. Submission of Accomplishment Report

Submit the accomplished Daily Accomplishment Report of the Enumerators at the same time that the accomplished questionnaires are submitted.

6.2 Manual Processing of Accomplished Questionnaires

One of the major activities after enumeration is the manual processing of accomplished questionnaires. Aside from the field editing of questionnaires done by the Team Supervisor, the accomplished questionnaires will again pass another manual processing to be done at the office of the Township Officer before these are transmitted to the designated Data Processing Center.

A training of manual processors shall be undertaken at the township level. Manual processors shall be recruited from among the staff of the Township, who can be assigned full time to the manual processing job.

The editing procedures in Chapter 5 of this manual will be used to train the manual processors. Except for missing entries, nothing is done by the editor except when some related information can be used to impute the missing data. Otherwise, the missing data will just be left blank.

Therefore, most of the manual processing will be devoted to verification of codes and reasonability of write-in entries. Foremost is the 100% verification of the geographic identification to ensure that the data that will be processed will be attributed to the village/village tract or ward where they come from.

A training of manual processors at the township level will be conducted as soon as possible right after the field operation, which is to end November 15, 2003. Based on the experience during the Pilot Census, there were many missing entries observed. As team supervisor, these missing entries should not be allowed. During the scrutiny of the questionnaires, the TS should have already corrected these missing entries.